Southern Forest Pest Reporter

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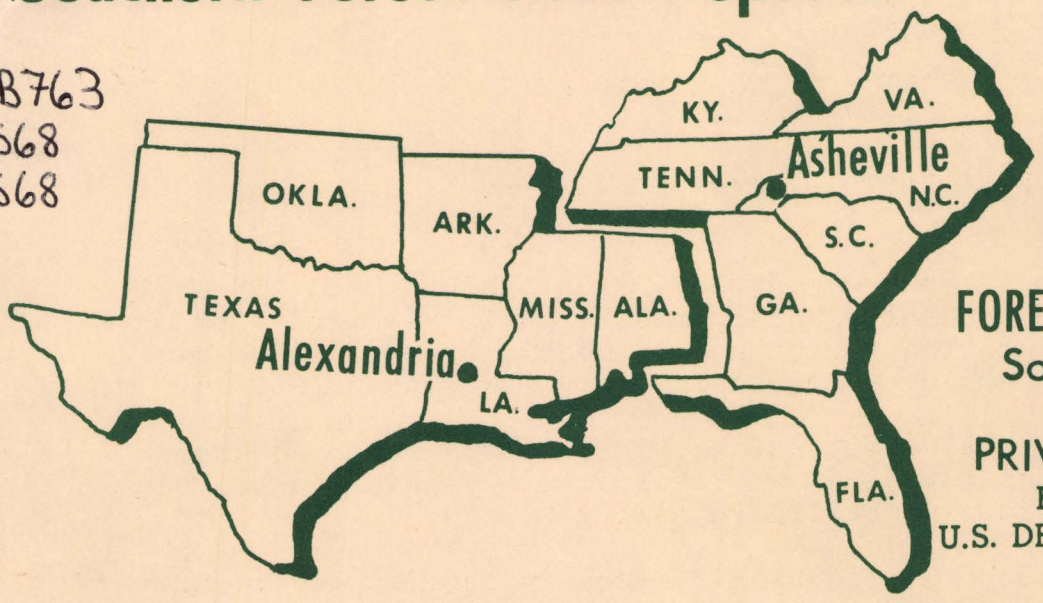

DIVISION OF
FOREST PEST CONTROL
Southeastern Area
STATE AND
PRIVATE FORESTRY
FOREST SERVICE
U.S. DEPT OF AGRICULTURE

FIELD OFFICES
Asheville, N.C.-Alexandria, La.

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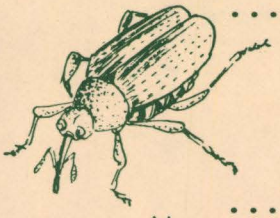

SUMMARY OF CONDITIONS

.... Although surveys made shortly after a January cold spell indicated that the overwintering brood of the southern pine beetle had suffered 95 to 97% mortality in Alabama, North Carolina, Tennessee and Virginia, some new beetle activity has been observed this spring on the Tusquitee District, National Forests in North Carolina. The beetle is also reported active in Louisiana, South Carolina and Texas.

.... Infestations of the loblolly pine sawfly are present in Alabama, Arkansas, Louisiana, Mississippi and Tennessee. The Virginia pine sawfly is present in Kentucky, North Carolina, Tennessee and Virginia. Generally speaking, sawfly populations are more numerous than in previous years.

.... Forest tent caterpillar infestations in southeastern Louisiana reached the highest level since 1963.

.... Heavy needle cast is present in Texas. Symptoms are evident in all pine producing areas of the state. Needle cast also present in North and South Carolina. It has been quite severe throughout the whole Southeast Area this spring.

.... Indications are that Comandra blister rust ceases to be a problem in plantations after the canopy closes.

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STATUS OF FOREST INSECTS

SOUTHERN PINE BEETLE, *Dendroctonus frontalis*, Zimm.

ALABAMA

Temperatures dropped to -5°F on the Bankhead National Forest in early January resulting in 97% mortality of overwintering southern pine beetle brood. Populations are expected to be considerably lower than 1969 levels.

ARKANSAS

A cooperative detection survey in six south Arkansas counties revealed two trees actively infested by the southern pine beetle in Ashley County.

LOUISIANA

The southern pine beetle is at an endemic level on all state and private lands within the state.

A localized southern pine beetle population, encompassing 46 M acres on the Winn and Catahoula Districts is continuing. Southern pine beetle attacks are secondary to *Ips avulsus* infestation in this area. Infested trees are being salvaged.

NORTH CAROLINA

Results of an evaluation to determine the effects of sub-zero temperatures on overwintering southern pine beetle populations in the mountains of western North Carolina indicate that brood mortality generally exceeded 95 percent. The exceptions were broods located in the thick outer bark at the base of large trees. Recent surveys in this area by the Division of Forest Pest Control have found very little new southern pine beetle activity even in areas where some brood was known to have survived. However, if below normal rainfall in the mountain areas persists into the summer, it may permit another buildup in the beetle population this fall. Recent surveys in this area by the Division of Forest Pest Control found increased southern pine beetle activity in newly attacked trees on the Tusquitee Ranger District, National Forests in North Carolina. The current infestation level is estimated at 12.5 $\pm$ 11.5 infested trees per M acres host type.

Elsewhere in the state, the beetle remains active in most of the infested Piedmont counties, particularly Davidson, Rowan, Mecklenburg and Cabarrus Counties. In the eastern part of the state beetle activity is reportedly increasing in Onslow and Gates Counties. (North Carolina State Forest Service)

SOUTH CAROLINA

The southern pine beetle continues to be epidemic in South Carolina in eastern York and upper Lancaster Counties; the beetle population is expected to cause losses similar to those in 1969. Reports from other sections of the Piedmont indicate very scattered small spots were present early this spring. (South Carolina Commission of Forestry)

TENNESSEE

As in North Carolina, the January cold snap has reduced the southern pine beetle population to very low levels. No new activity is reported by the State Division of Forestry.

As reported in the March Pest Reporter, some southern pine beetle broods did survive on the Tellico District of the Cherokee National Forest. An April survey of the District by the Division of Forest Pest Control indicated the presence of 2.2 ± 1.1 spots and 20.2 ± 20.3 red and fading trees per M acres of host type. Most of these red and fading trees were not presently infested and brood densities in those that were generally averaged below 100 beetles per square foot. It is still too early to tell if these few survivors will be able to initiate new attacks and perpetuate the epidemic, but the general opinion is that they will not.

TEXAS

The southern pine beetle population level remains significantly below that of previous years. During the period January 1 - April 1, 1970, a total of 136 multiple tree spots were detected on private lands. Of these, approximately 35 were active southern pine beetle infestations. (Texas Forest Service)

Southern pine beetle infestations continue at low levels on the National Forests in Texas. Brood densities in infested trees remain at a moderately high level ranging from 167-238 insects/ft^2 of bark surface. This indicates a potential for increased activity should conditions become favorable for this insect.

VIRGINIA

Low temperatures in the Piedmont of Virginia caused a substantial decline in the southern pine beetle population. Notably, the chronic outbreak area around Mecklenburg and Halifax Counties appears to have cooled off for the first time in four years. Some hot spots are still present, however, on the coastal plain around Sussex County. The Virginia Division of Forestry is making a considerable effort to salvage these spots. (Virginia Division of Forestry)

BLACK TURPENTINE BEETLE, *Dendroctonus terebrans* Oliv.

NORTH CAROLINA — The black turpentine beetle is reportedly causing slight damage to pines in Davie, Lincoln and Burke Counties. (North Carolina State Forest Service)

IPS ENGRAVER BEETLES, *Ips* spp.

LOUISIANA — *Ips avulsus* (Eich.) is causing tree mortality in the vicinity of Georgetown, in Grant Parish.

MISSISSIPPI — Massive infestations of Ips engraver beetles are causing severe losses to residual pines on approximately 20 M acres of forest land severely damaged by Hurricane Camille in the vicinity of Bay St. Louis and Pass Christian. Cooperative surveys using color aerial photography and ground sampling are underway to measure infestation levels and volume losses due to Ips.

TEXAS — Land clearing activities for the Franklin County Water District Lake south of Mt. Vernon have resulted in a large population of Ips engraver beetles. The beetles first attacked slash and debris and then nearby green timber. (Texas Forest Service)

PINE SAWFLIES, *Neodiprion* spp.

ALABAMA — Localized infestations of *Neodiprion taedae linearis* Ross, were reported from Northwestern Alabama. (Alabama Forestry Commission)

ARKANSAS — Infestations of the loblolly pine sawfly *N. taedae linearis* in the Hampton-Camden area of south central Arkansas were generally low with defoliation being observed in localized areas widely scattered over the infested counties. (Arkansas Forest Pest Reporter)

KENTUCKY — Shortleaf pine, *Pinus echinata*, and Virginia pine, *P. virginiana*, were severely defoliated by the Virginia pine sawfly, *N. pratti pratti* Dyar throughout much of the host's range in eastern and southeastern Kentucky. Many plantations have suffered extremely heavy defoliation.

PINE SAWFLIES (Cont'd)

KENTUCKY (Cont'd)

In western Kentucky the loblolly pine sawfly, *N. taedae linearis* Ross is causing some heavy defoliation of mature loblolly pine, *P. taedae*. (Kentucky Division of Forestry)

LOUISIANA

Six areas of localized defoliation by *N. taedae linearis* ranging from 5 to 1600 acres in size were detected. These occurred near Tullos, Winn Parish (1000 acres). Georgetown, Lincecum and Howcott in Grant Parish (2,320 acres) and Mamou in Evangeline Parish (25 acres) for a total of 3,345 acres of infestation. Trees of all size classes were defoliated, some were completely stripped of their foliage. (Louisiana Forestry Commission)

Localized colonies of the red-headed pine sawfly, *N. lecontei* were detected on young loblolly pines at summer homesites in the vicinity of Lake Cotile, Rapides Parish.

Light defoliation of young slash pines occurred over approximately 20 M acres in the vicinity of Flatwoods in Rapides and Vernon Parishes by the red-headed pine sawfly *N. lecontei*.

MISSISSIPPI

The loblolly pine sawfly, *N. taedae linearis* defoliated pine over 16 M acres in and near Columbus, Mississippi. (Mississippi Forestry Commission)

NORTH CAROLINA

Heavy defoliation by the Virginia pine sawfly in the Piedmont region of North Carolina is occurring for the second consecutive year. An aerial survey conducted by the North Carolina State Forest Service found heavy defoliation in five counties and light to moderate defoliation in portions of ten additional counties. This represents some spread in the infested area since last spring.

Reports from the field indicate the Virginia pine sawfly is also increasing in range in the western part of the state but established infestations were not as severe as last year.

A pine sawfly, *N. excitans* infestation in longleaf, *P. palustris* and loblolly, *P. taedae* in Carteret, Pasquotank and Davie Counties is reported to be doing insignificant to serious damage in these areas. (North Carolina State Forest Service)

TENNESSEE

The Virginia pine sawfly is epidemic in the eastern highland rim region of Tennessee and is causing moderate to heavy defoliation of Virginia pine and shortleaf pine in Clay, Jackson, Pickett, Overton, Fentress and Putnam Counties.

TENNESSEE (Cont'd)

The distribution of this insect appears to have almost doubled since last year and is causing much more severe damage.

The loblolly pine sawfly is again active in southcentral and northwestern Tennessee. Early observations and reports from the field indicate that this sawfly is causing generally heavier damage over a greater area than was observed in 1969. Reports from Dyer and Decatur Counties indicate infestations of this sawfly were present for the first time since the current epidemic began. (Tennessee Division of Forestry)

Scattered infestations of *N. taedae linearis* are present along the Natchez Trace Parkway in southern Tennessee causing light defoliation.

VIRGINIA

Three areas of defoliation by the Virginia pine sawfly are located in and around the Prince Edward-Charlotte County area. In addition, heavy defoliation was reported for the third consecutive year south of Bolling Green along the Mattaponi River. Some mortality is occurring in this area apparently due to bark beetles attacking the stressed trees.

The Southeastern Forest Experiment Station of the U. S. Forest Service in cooperation with the Virginia Division of Forestry is attempting to introduce two parasites to help in regulating the sawfly populations.

To date, 3,700 *Monodontomerus dentipes*, a small cocoon parasite, and 75 adult *Exenterus amictorius*, a pre-pupal parasite have been released.

FOREST TENT CATERPILLAR, *Malacosoma disstria* Hbn.

ALABAMA

A total of 45,820 acres of water tupelo ponds in the Mobile and Tensaw River Basins of southwestern Alabama were defoliated by the forest tent caterpillar; 20,870 acres were classified as partially defoliated and 24,360 acres suffered heavy defoliation. The area of infestation has spread approximately five miles southward as compared to 1969.

KENTUCKY

An epidemic population of the forest tent caterpillar, *Malacosoma disstria* Hbn. continues to cause defoliation in a 1,200 acre area in Hopkins, McLean, Mecklenberg and Ohio Counties. The Kentucky Division of Forestry is currently making a survey of the extent of the defoliation. (Kentucky Division of Forestry)

FOREST TENT CATERPILLAR (Cont'd)

LOUISIANA — Forest tent caterpillar infestations in southeastern Louisiana reached their highest level since 1963, with a total of 477,000 acres of water tupelo forests damaged. Infestations occurred in the vicinity of Morgan City, Thibodaux, Houma and the west side of Lake Maurepas. Infestations in the Mermentau River Basin declined from 10,000 acres in 1969 to 2,500 acres in 1970. (Louisiana Forestry Commission)

EASTERN TENT CATERPILLAR, *Malacosoma americanum* (F.)

KENTUCKY — Defoliation by the eastern tent caterpillar, *Malacosoma americanum* (F.) is reported heavy in scattered locations in Lawrence, Johnson, Magaffin, Martin and Pike Counties. (Kentucky Division of Forestry)

NORTH CAROLINA — Scattered infestations of the eastern tent caterpillar have been reported throughout the state. (North Carolina State Forest Service)

VIRGINIA — An increase in defoliation caused by the eastern tent caterpillar was reported throughout the state. This pest has been particularly troublesome in recreation areas and along the Blue Ridge Parkway.

FALL CANKERWORM, *Alsophila pometaria* Harr.

NORTH CAROLINA — The fall cankerworm population which had caused heavy defoliation on an estimated 800 acre tract bordering the Coweeta Hydrological Laboratory in 1969 has declined. No noticeable defoliation was observed from the air in June 1970 after completion of larval feeding.

VIRGINIA — A cooperative suppression project to control an epidemic population of the fall cankerworm on Bull Run Mountain in Prince William County, Virginia was completed on May 10. Good control was achieved over the 1,500 acre outbreak using .75 lbs. per acre of Gardona in diesel oil applied at the rate of one gallon per acre. This project represented the first use of Gardona to control the fall cankerworm on an operation basis since it was labeled for this insect.

TEXAS LEAF CUTTING ANT, *Atta texana* Buckley

LOUISIANA — Localized defoliation of young loblolly pines occurred near Pitkin, in Vernon Parish.

TEXAS — Approximately 5,500 freshly planted pine seedlings were heavily damaged in Bastrop, Wood, Gonzales, Lee, Colorado, Caldwell, Fayette, Polk and Rusk Counties. (Texas Forest Service)

PINE MOTHS, *Dioryctria* spp.

MISSISSIPPI — *Dioryctria amatella* larvae are actively attacking slash pine ramets in the Erambert Seed Orchard. Most of the attacks are at or below the graft union.

PINE TIP MOTHS, *Rhyacionia* spp.

TEXAS — Heavy damage to pine seedlings occurred in Chambers, Harris and Red River Counties. (Texas Forest Service)

DEODAR WEEVIL, *Pissodes nemorensis* (Germ.)

LOUISIANA — The deodar weevil caused heavy mortality in a 12 year old loblolly pine plantation in Natchitoches Parish, Louisiana.

TEXAS — Heavy damage to seedlings and saplings along roadsides and cleared areas was again detected in east Texas. Approximately 4,000 young trees in eastern Angelina County were killed or damaged by this insect. Injury is characterized by a distinct scorched appearance of affected trees, most of which eventually die. (Texas Forest Service)

LEAF ROLLERS

TEXAS — Several thousand acres of post oak and live oak in Colorado and LaVaca Counties were heavily defoliated in mid April. This is the second and third consecutive years of defoliation in many areas and has resulted in mortality of a few severely infested trees. At least two species of leaf rollers are involved. Identification is pending.

TEXAS (Cont'd) — The economic impact of repeated defoliation of oaks in central Texas is primarily through the reduction of the acorn crop and its effect on the deer population. Hunting leases are a major source of income for many ranchers in the area. (Texas Forest Service)

MISCELLANEOUS

LARGER ELM LEAF BEETLE, *Monocesta coryli*

TEXAS — Elms in Johnson City were defoliated by the larger elm leaf beetle.

SEEDLING DEBARKING WEEVILS

SOUTH CAROLINA — Abnormally high populations of the pales weevil, *Hylobius pales* Hbst. and the pitch-eating weevil, *Pachylobius picivorus* Germ. have been detected in the upper sand hills area. Observations have been made on the Sand Hills State Forest and Industrial land where large blocks of timber have been cut. Current populations may be related to ice storm salvage cutting. Damage caused by these insects is increasing. (South Carolina Commission of Forestry)

LEAF-MINING WEEVIL OF YELLOW POPLAR, *Odontopus calceatus* (Say)

TENNESSEE — Populations of the leaf-mining weevil of yellow poplar are increasing in scattered locations in the Central Penninsula State Forest in Union and Campbell Counties.

RODENT DAMAGE

VIRGINIA — Populations of a meadow mouse, *Microtus* sp. have been increasing throughout the state and have recently been causing 20-30 percent mortality to young loblolly pine plantations in the one-to-three-year age class. Most of the damage occurs in old field plantations within the first year after planting. (Virginia Division of Forestry)

MISCELLANEOUS (Cont'd)

PERIODICAL CICADA *Magicicada* spp.

VIRGINIA — Indications are that a heavy population of the periodic cicada will emerge this spring in the Piedmont and northern coastal plain, and in the mountain regions of Virginia. (Virginia Division of Forestry)

STATUS OF FOREST DISEASES

ANNOSUS ROOT ROT, *Fomes annosus* (Fr.) Cke.

KENTUCKY — *Fomes annosus* has been found throughout a 20 acre, 15-year-old loblolly plantation on the Pennyrile State Forest. (Kentucky Division of Forestry)

TENNESSEE — A survey by the Tennessee Division of Forestry of 31 loblolly pine plantations revealed 29 of them to be infected. Mortality losses ranged from 0.05 to 7.92 percent. A formal report will be issued in the near future. (Tennessee Division of Forestry)

NEEDLE CASTS, *Hypoderma lethale* Dearn & *Lophodermium pinastri* Sched.

NORTH CAROLINA — Browning of foliage due to needle casts has been sporadic across the state and varies from moderate to heavy in intensity. Some loblolly plantations on the coastal plain are heavily infected.

SOUTH CAROLINA — Again browning of foliage due to needle casts varies from heavy to light. Several slash pine plantations in Chesterfield County are nearly 100 percent infected. (South Carolina Commission of Forestry)

TEXAS — The most severe needle cast of pine noted in several years occurred this spring. Heaviest damage is generally along roadsides and small cleared areas. Damage is first noted as a browning of older needles, then partial or complete defoliation but new growth soon appears and covers all signs of infection. Activity was observed in all sections of the natural range of pine in Texas including the Lost Pines Area of Central Texas. The situation also caused much concern on high value ornamental pine in Houston. (Texas Forest Service)

CHESTNUT BLIGHT, *Endothia parasitica* (Murr.) A.&A.

LOUISIANA — Chinkapin in Grant Parish was found infected with chestnut blight. This is believed to be the first report of chestnut blight on Chinkapin in the state.

COMANDRA BLISTER RUST, *Cronartium comandrae* (Pk.)

ARKANSAS — Shortleaf pines infected by Comandra blister rust on the Ozark National Forest have not produced aeciospores so far this year, indicating the possibility of "rust years" similar to that which occur in the western U. S.

TENNESSEE — Results of the third annual measurement of evaluation plots on the Cumberland Plateau indicated that:

(a) Comandra rust ceases to constitute a problem after the canopy closes.
(b) The distribution of toadflax is spotty but is usually abundant near affected trees.
(c) Many branch cankers that were fruiting in 1968 and 1966 were inactive in 1970.
(d) Some stem cankers become inactive and never entirely girdle the main stem.

The Tennessee Division of Forestry and the University of Tennessee personnel examined 800 seedlings planted in 1969 for susceptibility to Comandra rust. No sign of infection was evident after the first year. (Tennessee Division of Forestry)

BROWN SPOT, *Scirrhia acicola* Dearn

SOUTH CAROLINA — Severe reddening of crowns due to brown spot has been observed on scattered longleaf trees in natural stands in Chesterfield County. The reddening is so severe that trees appear to be fire scorched from a distance. Affected trees are scattered and represent less than one percent of the total.

SCHWEINITZII ROOT ROT, *Polyporus schweinitzii* Fr.

NORTH CAROLINA — Several infection centers have been found in 100-plus-year-old white pine plantations on the Biltmore Estate in Buncombe County. Initial infections apparently occurred through root

SCHWEINITZII ROOT ROT (Cont'd)

NORTH CAROLINA (Cont'd)	wounds on trees adjacent to a bridle trail. The largest infection center may involve 20-30 trees. Damage overall is light (less than one percent) but appears to be increasing.

WINTER INJURY

GEORGIA NORTH & SOUTH CAROLINA	Moderate to heavy leader mortality believed due to severe winter temperatures has been observed in loblolly plantations in the Piedmont. Damage is most severe in fast growing plantations, where leaders up to two feet in length have been killed. Damage is practically non-existent in natural stands.
TENNESSEE	Winterkill or winter drying caused widespread tree terminal and leader die-back across the state. Loblolly plantations were particularly hard hit. (Tennessee Division of Forestry)

Figure 1: Chip cocoons of *Pissodes nemorensis* in a heavily infested tree

Figure 2: Forest tent caterpillar defoliation
Southwest Alabama

More detailed information can be obtained by writing to The Forest Pest Control Division Field Offices listed below or to the Atlanta Office:

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Asheville Office John L. Rauschenberger Zone Supervisor U. S. Forest Service Div. of Forest Pest Control Post Office Box 5895 Asheville, North Carolina 28803 Phone: (704) 254-0961 Ext. 625	Florida Georgia Kentucky North Carolina South Carolina Tennessee Virginia
Alexandria Office William M. Ciesla Zone Supervisor U. S. Forest Service Div. of Forest Pest Control 2500 Shreveport Highway Pineville, Louisiana 71360 Phone: (318) 445-6511 Ext. 311	Alabama Arkansas Louisiana Mississippi Oklahoma Texas

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